

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A three-dimensional image display device comprising:
an image display portion for displaying image information ~~comprising polarized light~~
according to a parallax separately in a first segment and a second segment;
first polarization means for polarizing lights from said first and second segments, facing said
image display portion;
polarization direction converting means opposed to provided so as to face at least said first
segment and second segments of said image display portion for converting a polarization direction
of said polarized light of said image information from said first segment into a direction different
from a polarization direction of said polarized light of said image information from said second
segment, wherein a portion of said polarization direction converting means facing said first segment
comprises a wave plate filter including a first half-wave plate which rotates said polarization
direction of said polarized light of said image information from said first segment by 90 degree;
second polarization means having a first polarization plate portion and a second polarization
plate portion to which said polarized lights separated by said polarization direction converting
means are respectively input, said first polarization plate portion for viewing with one of [[a]] right
and [[a]] left eyes eye, said second polarization plate portion for viewing with the other one of the
right and the left eyes eye, said first polarization plate portion having a polarization direction so as
to output said polarized light of said image information from said first segment, and said second
polarization plate portion having a polarization direction so as to output said polarized light of said
image information from said second segment;

a second half-wave plate provided over one of said first and second polarization plate portions of said second polarization means so as to face said first half-wave plate of said polarization direction converting means to rotate said polarization direction of said polarized light of said image information from said second segment by 90 degree image display portion, wherein said polarization direction of said polarized light of said image information from said second segment first polarization plate portion is the same as said polarization direction of polarized light passed through said second half-wave plate and said second polarization plate portion; and

a position holding mechanism for holding a positional relation between said second polarization means and said polarization direction converting means, wherein said second polarization means is 180 degree horizontally rotatable so as to position said second half-wave plate facing said second segment.

2. (Canceled)

3. (Currently amended) The three-dimensional image display device according to claim 1 further comprising a first quarter-wave plate disposed over said polarization direction converting means and interposed between said polarization direction converting means and said second polarization means, and a second quarter-wave plate disposed over said second polarization means and interposed between said second polarization means and said polarization direction converting means, wherein said first quarter-wave plate converts linearly polarized light into circularly polarized light and said second quarter-wave plate converts said circularly polarized light back to said linearly polarized light.

4. (Canceled)

5. (Currently amended) The three-dimensional image display device according to claim 1, wherein ~~said first and second polarization plate portions are changeable in position, so that, when said second polarization means is 180 degree horizontally rotated so as to position said second half-wave plate facing said second segment, said image information displayed on said image display portion can be changed from a three-dimensional image to a two-dimensional image and a position of the first half-wave plate can be adjusted with both eyes of an observer open or vice versa.~~

6. (Currently amended) The three-dimensional image display device according to claim 1, wherein distance, parallelism, and alignment between said second polarization means and said polarization direction converting means are held by said position holding mechanism.

7. (Currently amended) The three-dimensional image display device according to claim 1, wherein said position holding mechanism comprises an arm having a first end for supporting said second polarization means and a second end fixed to a frame of said image display portion.

8. (Currently amended) The three-dimensional image display device according to claim 7, wherein said position holding mechanism further comprises click type position adjusting means provided at said first end of said arm for adjusting the position of said second polarization means.

9. (Original) The three-dimensional image display device according to claim 7, wherein said position holding mechanism further comprises click type position adjusting means provided at

said second end of said arm for adjusting the position of said arm.

10. (Currently amended) The three-dimensional image display device according to claim 5 or 7, wherein said position holding mechanism comprises position adjusting means for changing a position of said second polarization means or said arm in at least one of a longitudinal direction, a lateral direction, and a vertical direction.

11. (Currently amended) The three-dimensional image display device according to claim 10, wherein said second polarization means is rotatable relative to said polarization direction converting means in at least one of said longitudinal direction, said lateral direction, and said vertical direction.

12. (Original) The three-dimensional image display device according to claim 7, wherein said arm is extendable and contractable in its longitudinal direction.

13. (Original) The three-dimensional image display device according to claim 1, wherein said image display portion is adjustable in angular position.

14. (Currently amended) The three-dimensional image display device according to claim 1, wherein the surface of said second polarization means is covered with a transparent protective material.

15. (Currently amended) A position holding mechanism, for use with a three-dimensional image display comprising at least first and second polarization means and polarization direction converting means, for holding a positional relation between said second polarization means and said polarization direction converting means, wherein said positional relation is adjustable, and wherein said polarization means having a first polarization plate portion and a second polarization plate portion to which polarized lights separated by said polarization direction converting means are respectively input, wherein said position holding mechanism is for use with a three-dimensional image display device comprising, the three-dimensional image display device comprises:

an image display portion for displaying image information ~~comprising polarized light~~ according to a parallax separately in a first segment and a second segment[[],];

said first polarization means for polarizing lights from said first and second segments, facing said image display portion;

said polarization direction converting means opposed to provided so as to face at least said first segment and second segments of said image display portion for converting a polarization direction of said polarized light of said image information from said first segment into a direction different from a polarization direction of said polarized light of said image information from said second segment, wherein a portion of said polarization direction converting means facing said first segment comprises a wave plate filter including a first half-wave plate which rotates said polarization direction of polarized light of said image information from said first segment by 90 degree;[[],]

said second polarization means having a first polarization plate portion and a second polarization plate portion to which polarized lights separated by said polarization direction converting means are respectively input, said first polarization plate portion for viewing with one of

[[a]] right and [[a]] left eyes eye, said second polarization plate portion for viewing with the other one of the right and the left eyes eye, said first polarization plate portion having a polarization direction so as to output said polarized light of said image information from said first segment, and said second polarization plate portion having a polarization direction so as to output said polarized light of said image information from said second segment[[,]]; and

~~said three-dimensional image display device further comprising a second half-wave plate provided over one of said first and second polarization plate portions of said second polarization means so as to face said first half-wave plate of said polarization direction converting means to rotate said polarization direction of said polarized light of said image information from said second segment by 90 degree image display portion, wherein said polarization direction of said polarized light of said image information from said second segment first polarization plate portion is the same as said polarization direction of polarized light passed though said second half-wave plate and said second polarization plate portion, wherein said second polarization means is 180 degree horizontally rotatable so as to position said second half-wave plate facing said second segment.~~

16-17. (Canceled)

18. (Currently amended) The position holding mechanism according to claim 15, wherein said three-dimensional image display device further comprises a first quarter-wave plate disposed over said polarization direction converting means and interposed between said polarization direction converting means and said second polarization means, and a second quarter-wave plate disposed over said second polarization means and interposed between said second polarization means and said polarization direction converting means, wherein said first quarter-wave plate converts linearly

polarized light into circularly polarized light and said second quarter-wave plate converts said circularly polarized light back to said linearly polarized light.

19. (Canceled)

20. (Currently amended) The position holding mechanism according to claim 15, wherein ~~said first and second polarization plate portions are changeable in position, so that, when said second polarization means is 180 degree horizontally rotated so as to position said second half-wave plate facing said second segment,~~ said image information displayed on said image display portion can be changed from a three-dimensional image to a two-dimensional image ~~and a position of the first half-wave plate can be adjusted with both eyes of an observer open or vice versa.~~

21. (Currently amended) The position holding mechanism according to claim 15, wherein distance, parallelism, and alignment between said second polarization means and said polarization direction converting means are held by said position holding mechanism.

22. (Currently amended) The position holding mechanism according to claim 15, wherein said position holding mechanism comprises an arm having a first end for supporting said second polarization means and a second end fixed to a frame of an image display portion.

23. (Currently amended) The position holding mechanism according to claim 22, wherein said position holding mechanism further comprises click type position adjusting means provided at said first end of said arm for adjusting the position of said second polarization means.

24. (Original) The position holding mechanism according to claim 22, wherein said position holding mechanism further comprises click type position adjusting means provided at said second end of said arm for adjusting the position of said arm.

25. (Currently amended) The position holding mechanism according to claim 20 or 22, wherein said position holding mechanism comprises position adjusting means for changing a position of said second polarization means or said arm in at least one of a longitudinal direction, a lateral direction, and a vertical direction.

26. (Currently amended) The position holding mechanism according to claim 25, wherein said second polarization means is rotatable relative to said polarization direction converting means in at least one of said longitudinal direction, said lateral direction, and said vertical direction.

27. (Original) The position holding mechanism according to claim 22, wherein said arm is extendable and contractable in its longitudinal direction.

28. (Original) The position holding mechanism according to claim 15, wherein said image display portion is adjustable in angular position.

29. (Currently amended) The position holding mechanism according to claim 15, wherein the surface of said second polarization means is covered with a transparent protective material.

30. (Currently amended) Polarization means comprising:

a polarization plate comprising a first polarization plate portion[[;]] and a second polarization plate portion, wherein

 said first and second polarization plate portions are input polarized lights separated by polarization direction converting means, respectively, and

 said polarization means is mounted to a position holding mechanism for holding the positional relation between said polarization means and said polarization direction converting means, wherein said positional relation is adjustable,

 wherein said polarization means is for use with a three-dimensional image display device comprising:

 an image display portion for displaying image information ~~comprising polarized light~~ according to a parallax separately in a first segment and a second segment[[,]];

 said polarization direction converting means ~~opposed to~~ provided so as to face at least said first segment and second segments of said image display portion for converting a polarization direction of said polarized light of said image information from said first segment into a direction different from a polarization direction of said polarized light of said image information from said second segment, wherein a portion of said polarization direction converting means facing said first segment comprises a wave plate filter including a first half-wave plate which rotates said polarization direction of said polarized light of said image information from said first segment by 90 degree;[[,]]

 said first polarization plate portion for viewing with one of [[a]] right and [[a]] left eyes eye, said second polarization plate portion for viewing with the other one of the right and the left eyes eye, said first polarization plate portion having a polarization direction so as to output said polarized

light of said image information from said first segment, and said second polarization plate portion having a polarization direction so as to output said polarized light of said image information from said second segment[[],]; and

~~said three-dimensional image display device further having a second half-wave plate provided over one of said first and second polarization plate portions of said polarization means so as to face said first half-wave plate of said polarization direction converting means to rotate said polarization direction of said polarized light of said image information from said second segment by 90 degree image display portion, wherein said polarization direction of said polarized light of said image information from said second segment-first polarization plate portion is the same as said polarization direction of polarized light passed though said second half-wave plate and said second polarization plate portion, wherein said polarization means is 180 degree horizontally rotatable so as to position said second half-wave plate facing said second segment.~~

31-32. (Canceled)

33. (Previously Presented) The polarization means according to claim 30, wherein said three-dimensional image display device further comprises a first quarter-wave plate disposed over said polarization direction converting means and interposed between said polarization direction converting means and said polarization means, and a second quarter-wave plate disposed over said polarization means and interposed between said polarization means and said polarization direction converting means, wherein said first quarter-wave plate converts linearly polarized light into circularly polarized light and said second quarter-wave plate converts said circularly polarized light back to said linearly polarized light.

34. (Canceled)

35. (Currently amended) The polarization means according to claim 30, wherein ~~said first and second polarization plate portions are changeable in position, so that, when said polarization means is 180 degree horizontally rotated so as to position said second half-wave plate facing said second segment, said image information displayed on said image display portion can be changed from a three-dimensional image to a two-dimensional image and a position of the first half-wave plate can be adjusted with both eyes of an observer open or vice versa.~~

36. (Previously presented) The polarization means according to claim 30, wherein distance, parallelism, and alignment between said polarization means and said polarization direction converting means are held by said position holding mechanism.

37. (Previously presented) The polarization means according to claim 36, wherein said position holding mechanism comprises an arm having a first end for supporting said polarization means and a second end fixed to a frame of an image display portion.

38. (Original) The polarization means according to claim 36, wherein said position holding mechanism further comprises click type position adjusting means provided at said first end of said arm for adjusting the position of said polarization means.

39. (Original) The polarization means according to claim 37, wherein said position holding mechanism further comprises click type position adjusting means provided at said second end of said arm for adjusting the position of said arm.

40. (Currently amended) The polarization means according to claim 35 or 37, wherein said position holding mechanism comprises position adjusting means for changing the position of said polarization means or said arm in at least one of a longitudinal direction, a lateral direction, and a vertical direction.

41. (Original) The polarization means according to claim 40, wherein said polarization means is rotatable relative to said polarization direction converting means in at least one of said longitudinal direction, said lateral direction, and said vertical direction.

42. (Original) The polarization means according to claim 30, wherein the surface of said polarization means is covered with a transparent protective material.